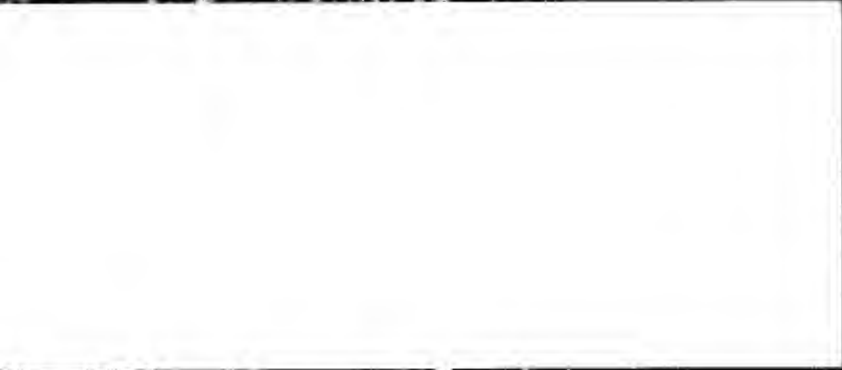
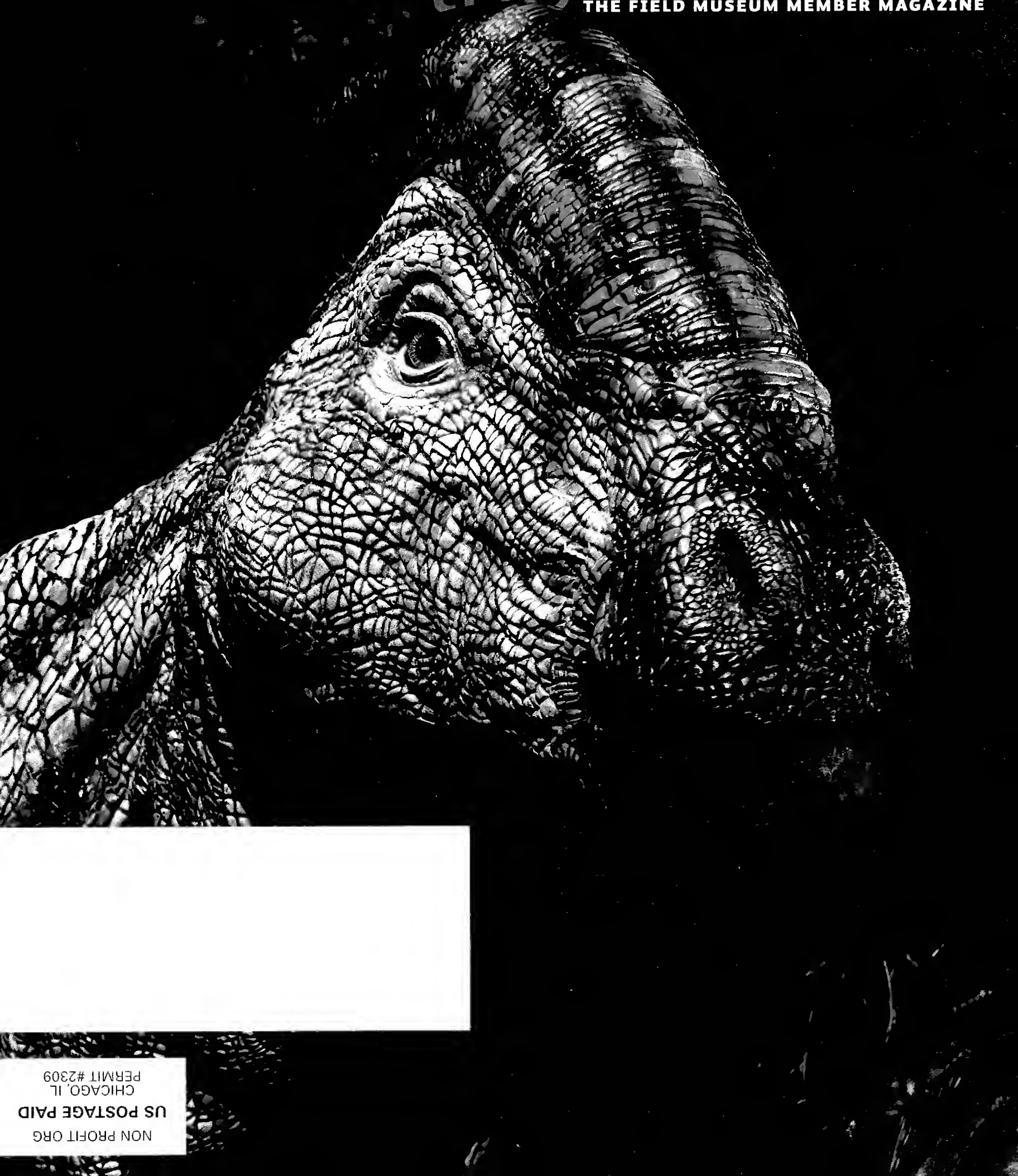


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IMAGINE EXHIBITIONS / NBCUNIVERSAL

ON THE COVER

Parasaurolophus, a life-like animatronic dinosaur, will be on view this summer in Jurassic World only at The Field Museum. See page 10.

The Field
Museum

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Table of contents

| | |
|---|----|
| Dear Member | 06 |
| In Brief: Field Exhibitions | 08 |
| Jurassic World: Bringing Dinosaurs to Life | 10 |
| SUE Lends a Hand | 12 |
| Specimens Spotlight: "Elmer" | 14 |
| Then and Now: Paleontology at the Field | 16 |
| Ancient Obsidian: Reflections on Ancient Economies | 18 |
| Supporter Spotlight: The Searle Family | 19 |
| Expedition: Colombia | 20 |
| Why Collections Matter: An Interview with Rusty Russell | 22 |
| Collections Discovery: Beardog | 23 |
| Rice Native Gardens: South Terrace Complete | 24 |
| Visit Field Market Days | 26 |
| Science Hub: Summer Programming | 28 |
| For Members Only | 29 |
| Museum Stores | 30 |
| Museum Campus Neighbors | |



Ancient rock art adorns outcroppings in the Amazonian region of Colombia. Read about Field Museum conservation efforts in this region. See "Expedition: Colombia" on pages 20 and 21.



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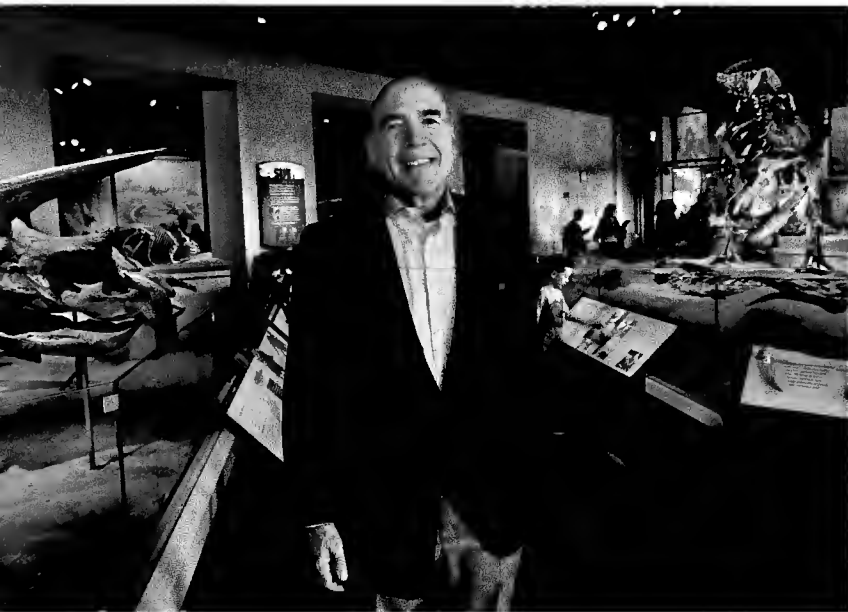
New 2018 preview brochure out now



dear member,

The study of natural history tells us change is a constant phenomenon. 2017 has already witnessed some monumental changes in our world. Yet, the mission of The Field Museum remains the same. We strive to inspire curiosity about life on Earth and work with you, our members, to help make the planet a better place for everyone.

Looking forward to the Museum's 125th anniversary in 2018—2019, I am reminded The Field has always existed to be the voice and champion for the future of our natural world.



Together, with your support, we are in a unique position to foster discussion, education, and action. All of us can step up as leaders and speak on behalf of the environment, using scientific knowledge to advance the cause of conservation and stewardship.

Two examples of this type of leadership stand out in this issue. The Field Museum exhibition, *Specimens: Unlocking the Secrets of Life*, reveals how the study of objects from the Museum's extensive collections has led to new scientific discoveries, many of which have practical applications in solving the problems

our world faces today. Additionally, the Museum's Keller Science Action Center has begun conservation work in the Amazonian region of Colombia, long closed off to researchers.

Their presence brings hope for the future of an area that was once war-torn and exploited.

Your continued support of projects such as these is making a real difference.

The Museum's mission remains critical in the presence of new challenges. Our work as a forward-thinking and open-minded scientific institution is more important than ever.

Thank you for being our partners in this noble endeavor.

RICHARD W. LARIVIERE, PHD

PRESIDENT AND CEO

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Opening Soon!

Beyond Bollywood: Indian Americans Shape the Nation

Beyond Bollywood presents the heritage, daily experience, and numerous contributions of Indian immigrants and Indian Americans through a selection of photographic panels. From



PRITHVI SHARMA

19th-century railway workers to today's doctors, cabdrivers, yoga masters, and technology CEO's, the exhibition weaves the lives and stories of America's Indian community into the larger historical fabric of the United States. Visitors can also explore stories from the Chicago-area Indian American community, hearing their oral histories and viewing cherished artifacts gathered from local contributors. *Beyond Bollywood* opens July 29 and closes on January 7, 2018.

Beyond Bollywood: Indian Americans Shape the Nation was created by the Smithsonian Asian Pacific American Center and the Smithsonian Institution Traveling Exhibition Service. The exhibition is co-presented in Chicago by The Field Museum and the Indo-American Heritage Museum.

This exhibition is generously supported by The Chicago Community Trust.

Now Open!

METEORITES

Where do meteorites come from? What are they made of? What happens when they fall to Earth? A stunning new permanent display at The Field Museum answers all of these questions and



JOHNNY KNIGHT

provides a closer look at actual meteorites from the Museum's collection. Examine the types of meteorites that Museum scientists study behind the scenes every day and uncover the secrets these "space rocks" can tell us about our universe. Visit the new display this summer, located in the Museum's Grainger Gallery near the Malott Hall of Jades.

Save the date!

MEDITERRANEAN MOSAIC

Drawing from The Field Museum's extensive archaeological collections of Etruscan, Roman, Greek, and Egyptian artifacts, this new Field Museum exhibition will explore the various interactions between peoples and cultures throughout the Mediterranean world from 500 BC through AD 200. What were the far-reaching impacts of these cross-cultural relationships over time and geography? And how are similar interactions happening today—and changing us—in our global society?

To find out, visit *Mediterranean Mosaic: Cultures in Contact* when it opens October 20.



24447 / A114174C_24447_A / DIANE ALEXANDER WHITE

Extended through Labor Day!

TATTOO

The art of marking skin with ink is over 5,000 years old and continues to evolve today. Now extended through September 4, *Tattoo* explores the cultures, practices, and objects connected with body art. Watch Chicago's best tattoo artists in action as they tattoo clients in the Museum's own tattoo shop on selected dates between 11am and 4:30 pm. For more information on dates and guest artists, visit fieldmuseum.org/tattoo.

This exhibition was developed and produced by the musée du quai Branly – Jacques Chirac. This exhibition and related programs are supported by a generous gift from an anonymous donor.

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JURASSIC WORLD

Kate Golembiewski,
PR and Science Communications Specialist

Bringing Dinosaurs to Life

DINOSAURS ARE AMAZING. ASK ANY KID—DINOSAURS CAPTURE OUR IMAGINATIONS WITH THEIR SIZE, THEIR FEROCITY, AND THE VERY WAY THEY GIVE US A GLIMPSE INTO A WORLD COMPLETELY DIFFERENT FROM THE ONE WE LIVE IN TODAY. This summer, not only will visitors see dinosaur fossils at The Field Museum, but they'll be able to imagine what it might have been like to walk among live dinosaurs in the Museum's newest offering, *Jurassic World: The Exhibition*.



IMAGINE EXHIBITIONS / NBCUNIVERSAL

Developed by NBCUniversal and Imagine Exhibitions around the blockbuster film of the same name, *Jurassic World* recreates the dino-filled island from the movie, complete with full-sized animatronic dinosaurs.

"One of our goals, as a natural history museum, is to provide visitors with the best dinosaur experience in the world," says Chief Marketing Officer Ray DeThorne. "Projects like *Jurassic World* will help us get there. It's a really breathtaking experience."

"These are the best replicated dinosaurs I've ever seen," says Project Manager Tom Skwerski. "Their movements are so fluid and lifelike that it's easy to suspend your disbelief."

In the exhibition, which will be hosted just outside of the Museum inside a temperature-controlled, weather-protected tent, visitors will find themselves face-to-face with life-sized, moving models of *Brachiosaurus* and *Tyrannosaurus rex*. They'll also be able to engage with hands-on digital activities and be part of a *Velociraptor* training encounter.

Museum officials hope that the *Jurassic World* experience will bring visitors closer to the fossil dinosaurs that have long called the Museum home. "Our fossil collections are one of the greatest things about The Field Museum," says DeThorne,

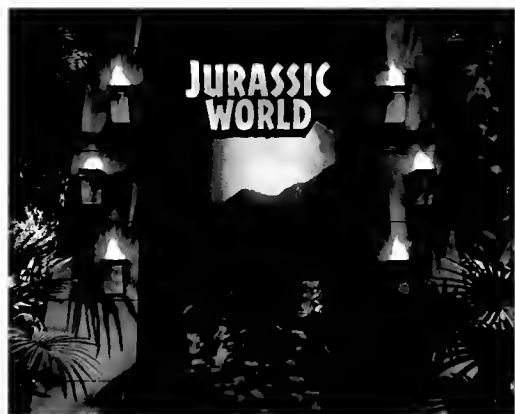
“and the *Jurassic World* dinosaurs are great ways to spark our imaginations about them. After seeing an animatronic *T. rex*, you can come inside, see SUE the *T. rex*, and picture what an incredible animal it must have been in life.”

In addition to the animatronic dinosaur experience, *Jurassic World* also presents fossils, casts, and numerous hands-on interactives.

“With *Jurassic World*, we’ll be able to offer something fun and exciting for our members and something spectacular to draw in new audiences,” says Public Relations and Community Awareness Director Jaclyn Johnston. “After they’ve seen the *Jurassic World* dinos and the real fossils inside the Museum, we hope new visitors will be excited by the science and become new members.” **ITF**



IMAGINE EXHIBITIONS / NBCUNIVERSAL



IMAGINE EXHIBITIONS / NBCUNIVERSAL

***Jurassic World* opens May 26 and runs through January 7, 2018.**

Current members can enjoy special discounts on tickets to *Jurassic World*. Reserve your tickets today by calling **312.665.7705** or by visiting **fieldmuseum.org/membership**. Step back in time and experience the excitement of walking alongside dinosaurs, only at The Field Museum this summer.

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Jurassic World: The Exhibition was produced in conjunction with NBCUniversal Brand Development and Imagine Exhibitions and co-produced by MagicSpace and IES. Animatronic dinosaurs were designed by The Creature Technology Company (*Walking with Dinosaurs*).



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SUE Lends a Hand

Kate Golembiewski, PR and Science Communications Specialist

SUE IS NOT ONLY THE WORLD'S BIGGEST TYRANNOSAURUS REX, SHE IS ALSO THE MOST COMPLETE AND ONE OF THE BEST PRESERVED. THAT MEANS SUE CONTAINS A TREASURE TROVE OF INFORMATION FOR PALEONTOLOGISTS.

"The research possibilities with SUE are endless," said McCarter Collections Manager of Fossil Vertebrates Bill Simpson. "She's a gift that keeps on giving."

The latest research project involves SUE's arms. "One of the big mysteries about *T. rex* is its tiny forelimbs," said Associate Curator of Dinosaurs Pete Makovicky, PhD. "We don't know how it used them, but there could be clues in the fossil bones themselves."



GN91345_006D / KAREN BEAN

To learn more, Makovicky and Simpson recently removed one of SUE's arms for research. "SUE's fossil is mounted with set screws; it's like an Erector Set," said Simpson. "We carefully disassembled SUE's right forelimb, and she was a one-armed bandit for a few days."

While the bulk of SUE's skeleton stayed on display at the Museum, her right arm was sent to the Argonne National Laboratory, about 30 miles southwest of Chicago. There, Argonne paleontologist and imaging specialist Carmen Soriano, PhD, took micro-CT scans of the arm to produce high-resolution images of its interior.

To capture the fine details in SUE's arm bones, Soriano used a synchrotron high-resolution micro-CT scanner. The machine uses a particle accelerator to excite electrons,

causing them to release built-up energy in the form of X-rays. This additional energy enables the scanner to take incredibly fine images, so scientists can see details at an almost cellular level.

Carmen Soriano (Argonne National Labs) and Peter Makovicky (The Field Museum) prepare to scan a bone from SUE's hand.



RICK FENNER/ARGONNE NATIONAL LABORATORY

"These X-rays will give us a map of the blood vessels and muscle attachments in the bone, which have never been seen before," explained Soriano.

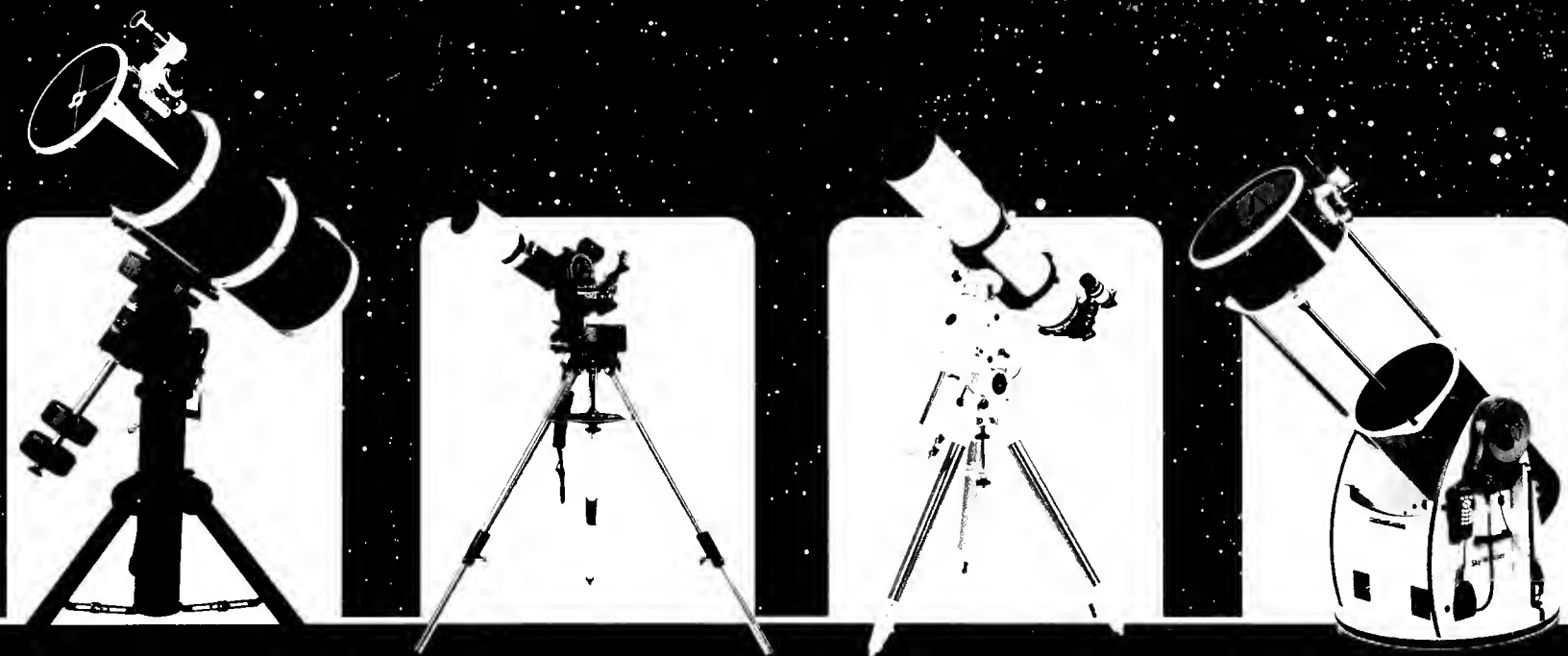
Added Makovicky, "We plan to examine the amount of stress and strain the bones may have experienced in life to determine how much the arm was used."

Makovicky and his colleagues are currently analyzing the data from the scans. Stay tuned to learn what new secrets SUE's arm might reveal! **ITF**

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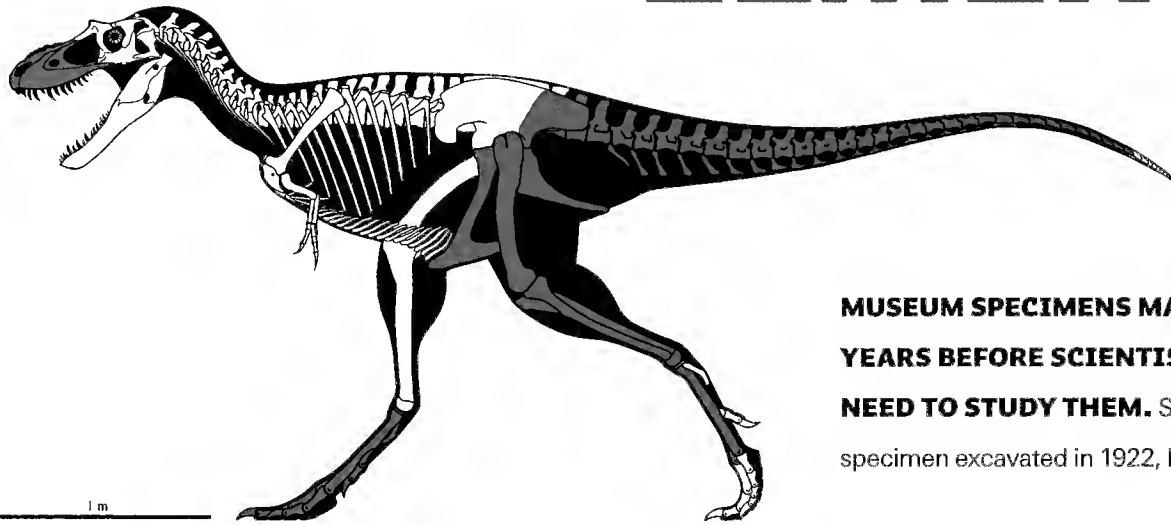
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Specimens Spotlight

"ELMER"



© SCOTT HARTMAN

Franck Mercurio, Editor

Marie Georg, Exhibition Developer

MUSEUM SPECIMENS MAY WAIT IN COLLECTIONS FOR YEARS BEFORE SCIENTISTS HAVE AN OPPORTUNITY OR NEED TO STUDY THEM. Such was the case with "Elmer," a dinosaur specimen excavated in 1922, but not studied until decades later.

Elmer is now on view in The Field Museum exhibition *Specimens: Unlocking the Secrets of Life*, along with hundreds of other objects selected from the Museum's collections areas. Discovered during a 1922 dinosaur expedition to Alberta, Canada, Elmer is named after Elmer S. Riggs (1869–1963), the Museum's first paleontologist and leader of the expedition. After excavating Elmer's fossilized remains, Riggs and his team wrapped the bones in plaster field jackets for safe transport back to Chicago. There, the jackets stayed—untouched for nearly 50 years—until 1970 when a later generation of Museum scientists sent parts of Elmer's skull and neck to the University of California, Berkeley, for study.

John Abbott wraps Elmer's bones in plaster jackets in 1922.



CSGEO45122



PETER MAKOVICKY

Associate Curator Peter Makovicky, PhD, visits Elmer's excavation site at Sand Creek Basin, Alberta, in 2003.

In 1999 preparators removed the rest of Elmer's bones from the stone matrix, allowing Associate Curator of Dinosaurs Peter Makovicky, PhD, to research Elmer more thoroughly. He identified Elmer as a juvenile *Gorgosaurus libratus*, a relative of *Tyrannosaurus rex*.

Elmer's skeleton is incomplete—Riggs' team retrieved about 50 percent of it in 1922. Makovicky and his team later revisited the dig site searching for more of Elmer's bones, but found only a rib fragment. Despite that, young dinosaurs like Elmer are valuable to science because they can be compared to adult specimens to study growth. Makovicky and colleagues analyzed the growth lines inside Elmer's bones, comparing them to lines from SUE, the *T. rex*. Like tree rings, the space between each line records just how fast a dinosaur grew, and the number of lines records how old it was when it died—in Elmer's case, just over five years old.

Why was Elmer shelved for so long? Another dinosaur discovery from Riggs' 1922 expedition took priority: *Lambeosaurus*. It was a major find—and a fairly complete specimen perfect for long-term display at the Museum. It is currently on exhibit in *Evolving Planet*. But Elmer's time has finally arrived—come see him this summer in *Specimens*. **ITF**

Specimens: Unlocking the Secrets of Life was organized by The Field Museum.

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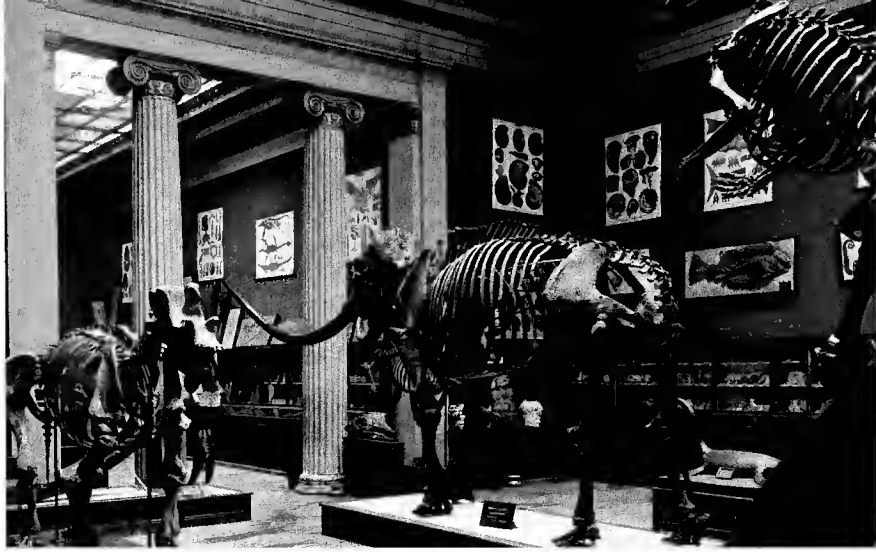
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Then: A mastodon skeleton takes pride of place in the Museum's first paleontology exhibitions, circa 1899, in the Museum's old Jackson Park building.

CSGEO2877

THEN AND NOW

Franck Mercurio, Editor

Paleontology at The Field

IN 2018, THE FIELD MUSEUM WILL CELEBRATE A MILESTONE: THE 125TH ANNIVERSARY OF ITS FOUNDING. To honor the occasion, *In The Field* is publishing a series of articles looking back on the Museum's history.

This first article presents the origins of The Field's renowned paleontology exhibitions and examines a few of its iconic specimens.

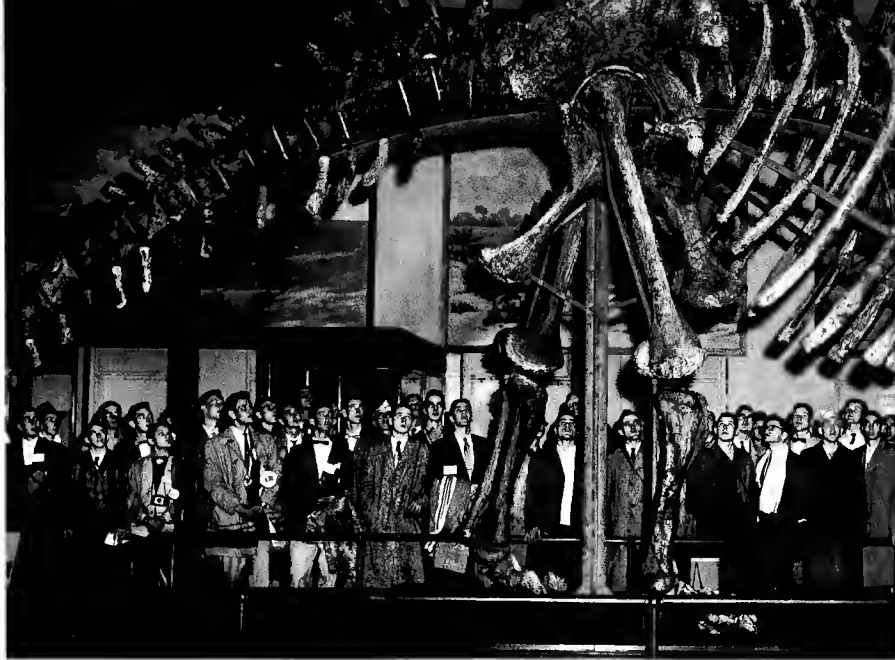


GN92097_007AD / JOHN WEINSTEIN

Now: A fiberglass cast of *Brachiosaurus* watches over Chicago's Museum Campus.

The core of the Museum's early paleontology collections originated with a purchase from a private company: Ward's Natural Science Establishment. After the 1893 World's Columbian Exposition ended, the newly established Field Columbian Museum needed collections. So, the Museum's founders bought the entire contents of Ward's display of natural history specimens presented at the Fair, reportedly enough objects to fill 30 train boxcars. Curators displayed the newly acquired collections—including minerals, meteorites, and paleontology specimens—all together in the west wing of the Museum's old Jackson Park building. The display had no overarching narrative; Victorian aesthetics favored highlighting individual objects over context, so species from different eras stood next to one other. Many of these specimens from the founding collection are still on display today, curated and placed within a more scientific setting to tell the story of evolution in *Evolving Planet*.

Arguably, one of The Field Museum's largest fossils is *Brachiosaurus*; one femur alone stands six-feet eight-inches tall and weighs a whopping 675 pounds. Curator Elmer Riggs' preparator, H. William Menke, discovered the specimen on July 4, 1900, near Grand Junction, Colorado. Riggs later identified the bones as belonging to a new species of sauropod—*Brachiosaurus altithorax*—the largest land animal yet discovered at that time. But because the find was only 20 percent complete, the holotype (the fossil remains used to describe a new species) was never mounted. However, in 1993 fabricators created a fully articulated fiberglass skeleton, casting the Museum's bones and combining them with modeled bones from the related *Brachiosaurus brancai* in Berlin. For six years, the cast stood guard over the north entrance to Stanley Field Hall. With the arrival of SUE in 2000, the Museum moved *Brachiosaurus* to O'Hare International Airport, where the dinosaur still welcomes arriving passengers today. A second all-weather cast stands on the Museum's northwest terrace, greeting commuters on Lake Shore Drive. (See photo, left.)



GN79248

Then: From 1908 until 1958, the Museum displayed an incomplete skeleton of *Apatosaurus*.



GREG MERCER

Now: The composite skeleton of *Apatosaurus* was remounted in the 2000s.

The Field Museum hired its first full-time paleontologist, Elmer S. Riggs, in 1898. Wasting no time, Riggs led dinosaur-collecting expeditions in 1899, 1900, and 1901. During the 1901 expedition, Riggs and colleagues excavated the partial remains of an *Apatosaurus* from the Jurassic dinosaur beds of western Colorado. The incomplete skeleton—consisting of rib and hip bones, some vertebrae, and the right thigh bone—was mounted and put on public display in 1908. For nearly 50 years, the “headless monster” confused many visitors, who thought the animal had only two legs! But with the discovery of a complementary specimen in Utah, Museum curators combined the bones of the two dinosaurs in 1958, along with casts of the lower limbs from the Carnegie Museum of Natural History. At 72 feet in length, this composite *Apatosaurus* is the longest dinosaur in *Evolving Planet*.



CSGE02956

Then: The discoverer of the Museum’s *Brachiosaurus altithorax*, H. W. “Bill” Menke stands next to the dinosaur’s femur, circa 1901.

Apatosaurus or Brontosaurus?

When Elmer Riggs excavated specimen “P 25112” in 1901, he initially identified it as *Brontosaurus*. Later, after studying several sauropod skeletons in East Coast museums, Riggs concluded in a 1903 paper that *Brontosaurus* and *Apatosaurus* were actually the same species. The name *Apatosaurus* soon gained acceptance in the scientific community, while *Brontosaurus* remained popular with the general public. The debate, however, between *Apatosaurus* and *Brontosaurus* was resurrected in 2015 with the publication of a scientific paper proposing that *Brontosaurus* is, indeed, a distinct genus. Widespread consensus in the scientific community is still forthcoming.

Ancient Obsidian

Reflections on Ancient Economies

Gary M. Feinman, MacArthur Curator of Mesoamerican, Central American, and East Asian Anthropology

Linda M. Nicholas, Adjunct Curator of Anthropology

Mark Golitko, Research Associate and Professor, University of Notre Dame

OBSIDIAN, OR VOLCANIC GLASS, WAS HIGHLY VALUED BY THE PEOPLE OF PREHISPANIC MESOAMERICA, THE GEOGRAPHIC REGION AND CULTURAL AREA STRETCHING FROM CENTRAL MEXICO TO COSTA RICA.

The ancient Mesoamericans—including the Maya and the Zapotec—prized obsidian for its sharpness and workability, qualities that enabled the fabrication of very sharp cutting tools.

Obsidian is also valuable to archaeological research. Individual outcroppings or mines are chemically distinct from one another, allowing researchers to trace obsidian objects back to their source through the analysis of different arrays of trace elements. This data enables archaeologists to reconstruct ancient trade routes.

In the past, the technical means for sourcing obsidian were expensive, destructive, and carried out by a small number of labs. But today, a new instrument called a portable X-ray fluorescence device (p-XRF) is revolutionizing the analysis of obsidian and allowing Museum archaeologists to better understand patterns of trade and exchange across prehispanic Mesoamerica.

Archaeologist J. Eric Thompson excavated this large obsidian axe in Belize in the 1930s.

A11485D_003B / JOHN WEINSTEIN / 189014

The Museum's research began with Maya obsidian objects excavated in the 1930s from the site of San José, Belize. The identification of the original sources of the San José obsidian revealed shifting patterns of exchange at the end of the Late Classic Period (circa 900 AD), suggesting a reorganization in trade networks that occurred with the fall of many Classic Maya cities and other large Mesoamerican settlements. To further examine these changes, the analysis was broadened to include obsidian objects from across Mesoamerica, covering different geographic regions and time periods.

We have now compiled an archive that exceeds 150,000 pieces of obsidian, some from published sources and some analyzed by Museum researchers using the p-XRF, including artifacts from sites excavated in the Valley of Oaxaca, Mexico. Continuing research confirms large quantities of obsidian moved across the region and documents major shifts in the exchange of obsidian over time.

Research supported by grants from Negaunee Foundation, The Grainger Foundation for Science, and National Science Foundation.

Finding obsidian ... inside the Museum

GN92358_015AD / JOHN WEINSTEIN



GN92358_015AD / JOHN WEINSTEIN

This year marks the 10-year anniversary of *The Ancient Americas*, The Field's groundbreaking exhibition chronicling 13,000 years of human ingenuity and achievement in the Western Hemisphere. Included are displays about the Maya, where you can find an array of exquisite obsidian objects.

Supporter Spotlight

THE SEARLE FAMILY

ESTABLISHED IN 1894 WITH ACQUISITIONS FROM THE WORLD'S COLUMBIAN EXPOSITION, THE FIELD MUSEUM'S JOHN G. SEARLE HERBARIUM IS ONE OF THE LARGEST AND MOST IMPORTANT IN THE WORLD. SOME OF ITS UNIQUE HOLDINGS INCLUDE:

- The world's largest collection of flowering plants from Central and South America;
- Specimens gathered during Captain James Cook's global voyages in the 1760's;
- One of the world's best collections of early land plants, tropical lichens, and fungi; and
- An extensive economic botany collection including an array of cabinet woods, forest products, and medicinal plants from more than twenty countries.

A distinguished Museum Trustee and generous donor, John G. Searle took a special interest in botany and made generous gifts to support the Herbarium during his tenure on the board (1952–1971). In 1972, Museum leaders named the facility to recognize his service. His son, William L. "Bill" Searle continued the family's leadership, serving as a Trustee for 34 years until his death in 2004. Today, the legacy of Searle Family leadership continues with Nydia Searle, a Trustee and co-chair of the Education Committee.

In 2006, a gift from the Searle Family enabled a major renovation of the Herbarium, the first since the Museum opened its present facility in 1921. In 2016, the Family announced a gift of \$2.5 million to establish the Searle Family Herbarium Legacy Endowment, to provide for ongoing maintenance and care of the Herbarium. These activities include digitization and public dissemination of the collection, facility upgrades, and research by Field Museum scientists and partners.

"At every important moment in the history of the Museum and the Herbarium, the Searle Family has been among the first to offer leadership and resources," said Museum President and CEO Richard W. Lariviere. "Our community is deeply grateful for this investment, which will fuel research and innovation for years to come."

The Field Museum gratefully recognizes the Searle Family for 65 years of leadership and philanthropy.



GN91965_054A4 / JOHN WEINSTEIN

Interns work on research and digitization projects in the Searle Herbarium.



SEARLE HERBARIUM / THE FIELD

Expedition COLOMBIA

ÁLVARO DEL CAMPO

By Corine Vriensendorp, PhD, MacArthur Senior Conservation Ecologist and Director, Andes-Amazon Program

IN THE HEART OF COLOMBIA, FOUR SPECTACULAR ROCK OUTCROPS KNOWN AS THE SERRANIAS DEL NOROCCIDENTE DE GUAVIARE RISE MORE THAN 1,800 FEET ABOVE THE ORINOCO PLAIN. For decades, this region has been a “no-go” zone controlled by the FARC guerilla group and isolated by 50 years of civil war. Very little is known about the regional biodiversity, and perhaps even less is known about the people who live here.

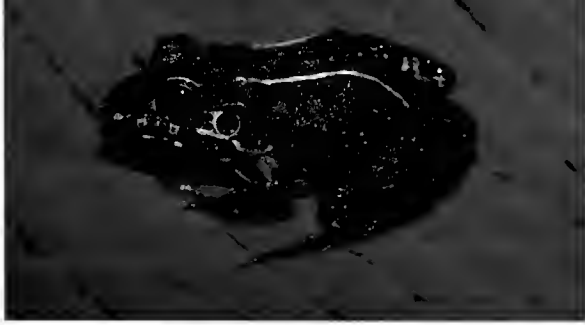


ÁLVARO DEL CAMPO

Colombia rapid inventory team, 2017

In 2016, The Field Museum’s rapid inventory team brought together 26 scientists from different parts of Colombia and spent several weeks exploring these outcrops and engaging the people living in small farming villages around the region. The effort was collaborative with twelve national, regional, and local institutions participating in the inventory. This is the Museum’s first inventory in Colombia and the first one in a conflict zone.

We explored a wild mix of savannas, shrublands, lush jungles, exposed rocks and sheer cliff faces—places where the flora and fauna of the Andes, Amazon, Orinoco, and Guianan Shield all collide. Our inventory turned up more than 20 species new to science, including 17 fishes, two plants, one frog, and one snake.



RANCES CAICEDO

Leptodactylus sp.



RANCES CAICEDO

Dendrophidion sp.



ÁLVARO DEL CAMPO

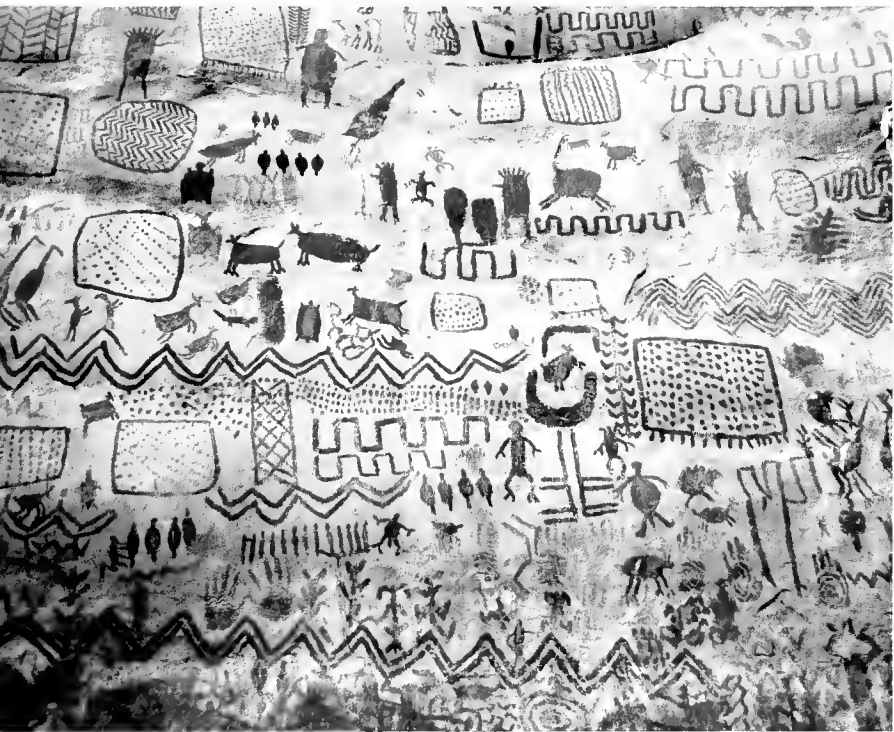
Paepalanthus chiquitensis

ALEX URBANO



Andinoacara sp.

Our inventory turned up more than 20 species new to science, including 17 fishes, two plants, one frog, and one snake.



ÁLVARO DEL CAMPO

Rock art at Cerro Pinturas

Rock art—compelling, mysterious paintings from an unknown civilization that existed 7,000 to 13,000 years ago—is preserved on the sandstone rock faces. However, modern colonization of the area is relatively recent, with people arriving from the Andes in the last 60 to 100 years to escape violence and find their fortune. Cattle ranching and coca plantations dominate local livelihoods. For the 4,500 people scattered in nearby villages and farms, the geologic uplifts or rocky outcroppings are an important source of water for them and their livestock.

The team is hard at work with Colombian partners to protect these approximately 75,000 acres of rock outcrops. And we will be working in other remote areas of the Colombian Amazon over the next three years. Stay tuned for more discoveries!

Keller Science Action Center programs in Colombia are generously supported by the Gordon and Betty Moore Foundation, the Boeing Initiative for Conservation and Community at The Field Museum, and an anonymous donor.



WHY COLLECTIONS MATTER

An Interview with Rusty Russel

Catie Boehmer, Annual Giving Manager

COURTESY RUSTY RUSSELL

EARLIER THIS YEAR, RUSTY RUSSELL JOINED THE FIELD MUSEUM AS DIRECTOR OF THE GANTZ FAMILY COLLECTIONS CENTER. Before moving to Chicago, Russell led collections operations at the United States National Herbarium at the Smithsonian Institution. Russell has worked in multiple natural history disciplines and is a passionate advocate for museum collections. Throughout his career, Rusty has been intentional about projects that incorporate nontraditional uses of objects and specimens, shining light on the value and relevance of museum collections, as well as on the significant resources required to preserve and care for them.

What was your “a-ha” natural history moment?

When I was twelve years old, my dad went to Indiana University for a year. We moved to the fields of corn in Bloomington, Indiana, and I found myself riding my bike all over southern Indiana collecting leaves for a science project. After that, it just became an obsession for me, to understand characters—plant characters—and why things were what they were and everything about them.

What is the importance of natural history collections, like the ones we have at The Field Museum?

I like to describe natural history collections as being a three-dimensional point in biodiversity, in planetary science, and in culture. You have objects that were in a particular place at a particular time. They're irreplaceable. You can't go back and collect; you can't go back and recreate. Objects and specimens in a natural history collection are the most unambiguous pieces of information about our world we can work with.

We also now understand how, as time passes, the collections may be tapped as sources of information in new ways. We're extracting whole genomic data from specimens to better understand the relationships between taxa. The scientist who collected specimens 100 years ago could not have anticipated that. The future of museum collections, I think, has as much to do with answering questions we don't really know are questions yet, because the ability of physical collections to shed light has continued to change.



GN91729_17AD / JOHN WEINSTEIN

There are going to be questions that confront us as technology puts us in a position to better understand our world, and we will need material from an earlier time or from a place that doesn't exist anymore. The only place you're going to find those things are in museums. So instead of just putting everything in the Museum's database, taking a picture, and throwing everything away, we are preserving collections for posterity so that these kinds of questions can be answered when they inevitably arise.

||||||| **What are the immediate and long-term priorities of the Gantz Family Collections Center?**

In any collection, the immediate need, always, is to care for the objects, because without them we're not a museum. Then, it is an ongoing priority to make the collections as fully accessible as possible for research and learning. But if you think about it, those two things are in a tug-of-war, they compete with one other. If you want to make objects from the collections available to a research scientist in India, you have to put them in a box and ship them halfway around the world—contradicting the need to take perfect care of them for posterity.

One of the ways this challenge has been resolved, at least to a great extent, has been the digital revolution. We can now put the information—and incredibly good images of the objects, not ambiguous images—in front of people around the world, so they can answer a large percentage of their questions without buying a plane ticket or shipping across the globe.

||||||| **What excites you about your new role at The Field?**

One thing I've been impressed with is the level of excitement of the staff. When you work at a museum, you don't have to drag yourself out of bed in the morning because it's what you want to do. But it's still nice that when you walk in every day, everybody's approach to being here is so uplifting. When you love what you do, and it inspires you every day, how cool is that?

COLLECTIONS DISCOVERY

Beardog



By *Kate Golembiewski, PR and Science Communications Specialist*
ILLUSTRATION: MONICA JURIK

Fossil discoveries don't always happen in the field. Sometimes, fossils lay in wait within museum collections until a researcher comes along and notices something unusual about them.

Recently, paleontologists revisited two species of fossil carnivores in The Field Museum's collections. The true identities of these fossils remained obscure for years, but have now been identified as some of the earliest and most primitive members of the "beardog" family, also known as amphicyonids.

Beardogs aren't bears, and they're not dogs. Instead, they belong to an extinct branch of carnivores. The beardog specimens found in the Museum's collections were discovered and officially described decades ago. But until now, scientists didn't know where they belonged on the carnivore family tree.

"We've known about these curious little critters for 30 years, but couldn't tell exactly what kind of carnivores they were," explained Susumu Tomiya, a postdoctoral scholar at The Field Museum who re-identified the specimens in the Museum's collections. In a recently published study, Tomiya and his colleague Zhijie Jack Tseng, PhD, (American Museum of Natural History / SUNY Buffalo) concluded that the two species had been grouped into the wrong family and genus.

The two newly classified animals—now renamed *Gustafsonia* and *Angelarctocyon*—lived 38 to 37 million years ago in what is now Texas. "These are some of the earliest beardogs," said Tomiya. "By about 15 million years ago, the beardog family had given rise to huge predators—bigger than modern lions—but the early members were tiny, around the size of a Chihuahua."

Tomiya notes the scientific value of museum collections for discoveries like his. "There's so much history embedded in these collections," he said. "All biodiversity research is contingent on good understanding of what species lived where and when in the past, and how they are related to one another. Museum collections are vital to building and continually refining such fundamental information."

For more information about the two reclassified beardog species, read "Whence the beardogs?" on the Royal Society Open Science website: rsos.royalsocietypublishing.org



Left to Right:
Queen of the Prairie, June-August
Nodding Wild Onion, July-August
Purple Prairie Clover, July-September

LAURA MILKERT AND IDA REDLINSKI

RICE NATIVE GARDENS

South Terraces Complete

By Carter O'Brien, Sustainability Manager

THIS PAST FALL, THE FIELD MUSEUM'S SOUTH TERRACES RECEIVED A LANDSCAPING OVERHAUL THROUGH THE GENEROSITY OF THE DANIEL F. AND ADA L. RICE FOUNDATION, COMPLETING THE FIRST PHASE OF THE RICE NATIVE GARDENS.

Designed by site design group, ltd., and Clauss Brothers, Inc.—the same firm that installed the Alpine Gardens at Chicago's 1933 Century of Progress Exposition—the *Rice Native Gardens* feature a diverse mix of over 60 species indigenous to northeast Illinois.



JENNIFER DRAPER, SITE DESIGN GROUP, LTD.

From late August through mid-September 2016, landscapers installed 13,000 individual plants in the south terrace beds and an additional 12,000 plugs of *Carex pensylvanica* and *Carex brevior* (native grasses) replacing the traditional lawn. Look for these native grasses near the Divvy bike station.

Visitors to the Museum Campus will notice the south terraces are now alive with activity. The plants were carefully curated for their value in providing habitat to pollinators. The Butterfly Seeding Garden, located on the southwest terrace, contains plants specifically selected to complement larger regional efforts to protect the Monarch butterfly.

Chosen for their beauty as well as their ability to thrive in Chicago's extreme temperature fluctuations, the garden's native Illinois plants can be identified with a user-friendly Rapid Color Guide created by Museum staff. A complete list of *Rice Native Gardens* plant species can be found on the Museum's website. Included are links to the Museum's collections database, which catalogues specimens contained in the Searle Herbarium, some collected as far back as the 1800's.

Native plant landscaping continues on the Museum's northeast terrace this year. The project will conclude in 2018 with the completion of the *Rice Native Gardens* on the Museum's northwest terrace.

For more information about the Rice Native Gardens, visit fieldmuseum.org/nativegardens



LAURA MILKERT AND IDA REDLINSKI

Swamp Milkweed,
June-August

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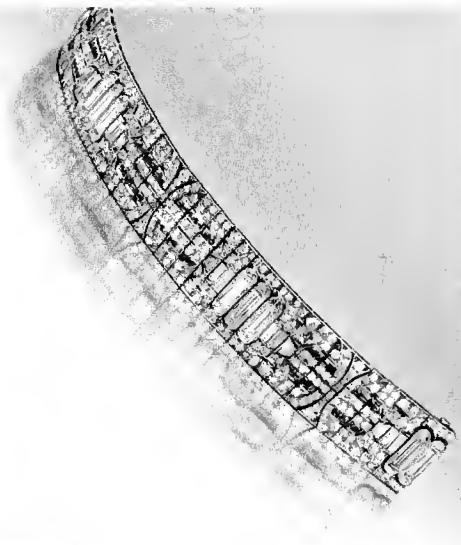
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VISIT

Field Market Days

By Brian Rathbun, Executive Chef, The Field Museum

AS A CHEF, I AM WELL AWARE OF THE BENEFITS OF USING LOCAL VEGETABLES.

THE TASTE IS UNDENIABLY BETTER; and knowing the produce is coming from a nearby farm ensures it will be as fresh as possible. In the Museum's Explorer Café, Field Bistro, and catering kitchen, my staff and I use seasonal vegetables from local farms to deliver this freshness to our guests.

Field Market Days will be open from 2–6 pm on the following Saturdays:

- June 24
- July 15
- August 26
- September 23
- October 14

Program sponsor:



PEPSICO



Tropicana



Naked

Now, Field Museum members and visitors can purchase some of this same produce for themselves. On select Saturdays this summer and fall, the Museum will host monthly farmers markets on the southwest terrace facing Soldier Field. Field Market Days will boast music from local artists, craft beers from Chicago and regional brewers, and delicious food prepared with locally procured ingredients.

Most importantly, the market will sell produce provided by farmers from the surrounding region and “urban farms” located within Chicago. These seasonally available foods—including a variety of fruits, vegetables, honey, and other farm products—are guaranteed to be naturally fresh and ripe. And, choosing locally grown foods from the market not only supports local agriculture, but benefits the wider community as well.

By hosting Field Market Days, the Museum has an opportunity to bring the community more closely together. After spending time enjoying the Museum's exhibitions this summer, you can step outside and meet local farmers, enjoy great local beer, listen to awesome live music, and return home with fresh, local ingredients for a sunny backyard barbecue or a tasty family dinner.

Field Market Days are a great way to spend a Saturday afternoon this summer. Stop by, try some delicious prepared foods, and support your local growers.

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GRAINGER SCIENCE HUB

Summer Programming

Aimee Davis, Volunteer and Public Learning Experiences Administrator

THE GRAINGER SCIENCE HUB, THE NEW INTERACTIVE LEARNING CENTER IN STANLEY FIELD HALL, WILL FEATURE TWO DISPLAYS THIS SUMMER FOCUSING ON MUSEUM RESEARCH AND COLLECTIONS.

The first highlights Chicago's peregrine falcons and explores their unique anatomy, behaviors, and recent history of near extinction. Featuring hands-on activities, the peregrine display will delve into the Museum's ongoing conservation efforts to restore the local population of these ecologically important birds.

The second display compliments the Museum's special exhibition *Specimens: Unlocking the Secrets of Life* and presents objects from the Museum's "economic botany" collection. This collection features intriguing examples of historic items made from plants, including pieces originally exhibited at the 1893 World's Columbian Exposition. Here, visitors can engage in hands-on activities, see photos of how the items were used, and hear stories about the origins of the collection and how it is actively used today.

Also this summer, the Museum will debut three new interpretive stations in Stanley Field Hall. These will highlight The Field's collections and research programs, encouraging visitors to touch real specimens, ask questions, and converse with Museum staff. Topics will include Chicago biodiversity, animals often mistaken for dinosaurs, and what shoes can tell us about human cultures.



THE LEARNING CENTER / THE FIELD MUSEUM



THE LEARNING CENTER / THE FIELD MUSEUM

Don't miss the Museum's Meet a Scientist program every Friday from 11am-1pm. The Hub will also host Q&A via Skype with scientists working in the field. For dates and details, visit the Grainger Science Hub webpage at fieldmuseum.org/sciencehub.

The Grainger Science Hub is made possible by a grant from The Grainger Foundation.

FOR MEMBERS ONLY



30005 / A110726c / Ron Testa

SUMMER TOURS JUNE-SEPTEMBER

Join us this summer for member-only tours, highlighting four of the Museum's permanent and temporary exhibitions. Tours will be led by Field Museum docents, who will give in-depth looks at the following exhibitions:



GN90846_020d / John Weinstein

Saturday, June 10 – *Specimens: Unlocking the Secrets of Life*

Sunday, July 9 – *Inside Ancient Egypt*

Saturday, August 12 – *Evolving Planet*

Sunday, September 10 – *Cyrus Tang Hall of China*

All tours will begin at 10 am. To provide the best tour experience, space is limited and reservations are required. Registration will open one month prior to each tour.

To make reservations, visit fieldmuseum.org/memberevents or phone 312.665.7700.

Priority Entry for Members

Members now receive “priority entry” to special exhibitions and 3D movies—a nice advantage on crowded days at the Museum. Look for the Express Entry signs outside special exhibitions and the 3D theater. Simply show your member sticker to receive priority entry.

Updated Membership Cards

We are working to provide membership cards that will allow faster entry to the Museum, leaving more time for you to explore! A phased rollout will begin later this summer. Look for your new cards to arrive in the mail with important information you'll need to make the most of each visit.

Special *Jurassic World* Pricing for Members

Enjoy *Jurassic World* with discounted tickets for members. During regular Museum hours, member tickets for this exhibition will be \$11/adult, \$10/student and senior, and \$7/child (ages 3-11). Advanced tickets can be purchased by calling 312.665.7705. Same-day tickets can be purchased on a first-come, first-served basis at the Membership Desk. For more information, visit fieldmuseum.org/membership.

Connect with The Field Museum online!



MUSEUM STORES

Bring the Jurassic World to Life



Giant dinosaurs, flying reptiles, scampering mammals, and lush green cycads—these fantastic fauna and flora of the Jurassic period are known to us today largely through the fossil record and have been re-created in the special exhibition *Jurassic World*.

Shop the Museum Stores to discover beautifully detailed, hand-painted dinosaur figures—and together, with your imagination, bring the *Jurassic World* back to life!

Each purchase helps support the Museum's ongoing educational and research efforts.

To shop online, visit
store.fieldmuseum.org,
or call us at 312.665.7686

MUSEUM CAMPUS NEIGHBORS

ADLER PLANETARIUM

Discover why Space is Freaking Awesome this summer at the Adler Planetarium! Dust off your dancing shoes and join us for *Adler After Dark: Planetary Prom* on May 28. The all-ages *Adler After Dark: Family Edition* returns on June 24. On August 21, the U.S. will experience the first total solar eclipse in 38 years. Make the most of this rare celestial occurrence during our *All Eyes on the Sky* event at the Museum. We'll be partnering with SIU for a celebration in Carbondale directly in the path of totality.

For more details on these events,
visit www.adlerplanetarium.org

SHEDD AQUARIUM

Enjoy Shedd Aquarium inside and out this summer! Take a behind-the-scenes tour to learn how Shedd cares for many of its 32,000 animals, including a peek into the kitchen and animal hospital. *Stingray Touch*, Shedd's outdoor stingray touch pool, reopens in late May, and *Jazzin' at the Shedd* returns with musical Wednesday evenings beginning June 21. And after you've seen the *Amphibians* special exhibit, with more than 40 species of frogs, salamanders and caecilians, sign up for a *Great Lakes Action Day* to help conserve our local amphibians.

For details and tickets,
visit www.sheddaquarium.org



The Field Museum salutes the people of Chicago for their long-standing support of the Museum through the Chicago Park District.

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Ai Weiwei. Han Dynasty Vases with Bricks. Photo by Andy Terzes.

Ai Weiwei. Han Dynasty Vases with Bricks. Photo by Andy Terzes.



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